Up on the Farm

curriculum links

Grade 3:

- Canada and World Connections:
  Urban and Rural Communities
- Understanding Earth and Space Systems:
  Soils in the Environment
- Understanding Life Systems:
  Growth and Changes in Plants

overview

This activity demonstrates Best Management Practices concerning properties located near open watercourses. It will show the detrimental effect that cattle, clear-cutting, fertilizers and development have on the natural environment while focusing on how to rehabilitate land that has been mismanaged.

grade 3 expectations

Social Studies
Canada and World Connections: Urban and Rural Communities
Overall Expectations

- identify and compare distinguishing features of urban and rural communities;
- use a variety of resources and tools to gather, process, and communicate geographic information about urban and rural communities;
- explain how communities interact with each other and the environment to meet human needs.

Specific Expectations
Understanding Basic Concepts

- identify geographic and environmental factors that explain the location of various urban and rural communities, with examples from Ontario;
- compare land use and access to natural resources in urban and rural communities;
- compare transportation in urban and rural communities;
- compare population density and diversity in urban and rural communities;
- compare buildings and structures in urban and rural communities.

Inquiry/Research and Communication Skills

- ask questions to gain information about urban and rural communities;
- use primary and secondary sources to locate key information about urban and rural communities;
- sort and classify information about communities to identify issues and solve problems;
- use appropriate vocabulary to communicate the results of inquiries and observations about urban and rural communities.

Science and Technology

Understanding Earth and Space Systems: Soils in the Environment

Overall Expectations

- assess the impact of soils on society and the environment, and of society and the environment on soils;
- investigate the composition and characteristics of different soils;
- demonstrate an understanding of the composition of soils, the types of soils, and the relationship between soils and other living things.

Specific Expectations

Relating Science and Technology to Society and the Environment

- assess the impact of soils on society and the environment, and suggest ways in which humans can enhance positive effects and/or lessen or prevent harmful effects;
- assess the impact of human action on soils, and suggest ways in which humans can affect soils positively and/or lessen or prevent harmful effects on soils.

Developing Investigation and Communication Skills

- investigate the components of soil, the condition of soil, and additives found in soil, using a variety of soil samples from the different local environments, and explain how the different amounts of these components in a soil sample determine how the soil can be used;
- use appropriate science and technology vocabulary, including, *clay, sand, loam, pebbles, earth materials,* and *soil,* in oral communication.

Understanding Basic Concepts

- identify additives that might be in soil but that cannot always be seen.

Science and Technology

Understanding Life Systems: Growth and Changes in Plants

Overall Expectations

- assess ways in which plants have an impact on society and the environment, and ways which human activity has an impact on plants and plant habitats;
- investigate similarities and differences in the characteristics of various plants, and ways in which the characteristics of plants relate to the environment in which they grow;
- demonstrate an understanding that plants grow and change ad have distinct characteristics.

Specific Expectations

Relating Science and Technology to Society and the Environment

- assess ways in which plants are important to humans and other living things, taking different points of view into consideration, and suggest ways in which humans can protect plants;
- assess the impacts of different human activities on plants, and list personal action they can engage in to minimize harmful effects and enhance good effects.

Developing Investigation and Communication Skills

- investigate ways in which a variety of plants adapt and/or react to their environment, including changes in their environment, using a variety of methods;
- use appropriate science and technology vocabulary, including *stem, leaf, root, pistil, stamen, flower, adaptation,* and *germination,* in oral communication.

Understanding Basic Concepts

- describe the different ways in which plants are grown for food, and explain the advantages and disadvantages of locally grown and organically produced food, including environmental benefits;
- describe the basic needs of plants, including air, water, light, warmth, and space;
- identify examples of environmental conditions that may threaten plant and animals survival.

key terms

Best Management Practices - Practices that minimize the risk to the environment while satisfying economy productivity.

Infiltration - The process by which water seeps into the ground to feed plant roots and ground water supplies. Once water infiltrates the ground it begins to be filtered by soils and plants before entering a watercourse.

Integrated Pest Management - The practice of combining physical, chemical, biological and cultural controls to control a pest and ensuring proper storage, mixing and handling of pesticides.

Nutrient Management - The practice of applying fertilizer and manures only in the amounts that can be taken up by a crop. Anything above these amounts has the potential to enter the surface and groundwater.

Pesticide - Any chemical or biological agent that is used to prevent, destroy, repel or mitigate a plant or animal pest.

Greenbelt - an area of woods, parks, or open land surrounding a community.